

Anchoring Regulations: Intermediate Institutions, Meta-rule of Law


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pompeu.casanovas@uab.cat

pompeu.casanovas@rmit.com.au

Problems

- How to bridge institutions, rules, norms, apps and people to set up specific ecosystems that turn “legal”?
- How to regulate “legally” the information flow on the Web in order to empower people (individuals and communities) and make the balance between liberty and security?
- How to make “legally” effective artificial devices (electronic institutions, REL...) on the Web of Data?

- Legal models (classic)  Intermediate Institutional Models (SWRM)
- (i) CAPER (regulatory model)
- (ii) Relational Justice
- (iii) Web of data (REL)



- (i) Data and metadata to structure the flow of information
- (ii) Social intelligence and crowdsourcing taking into account the collective properties both of human and computational cognition
- (iii) Formalisation of languages of law making norms and rights manageable
- (iv) Security and privacy to protect individuals and communities from ancient and new threats (to prevent violence across the web)



1. Dialogue, and not only power, is emerging as a source of law across technology. People, *we the people*, have a new opportunity to take the floor.
2. Information principles can be embedded into the making of this new digital society.
3. *Privacy by design, data protection by design, security by design* are other terms used for the construction of a new Rule of Law, or Meta-Rule of Law, comprising humans and programs, rights and languages, alike.
4. We have to face in the next years the management of a new self, a personal identity which is complex, plural, multidimensional and durable on the Web.

Vivian Maier, Self-portraits, 2013

What is the difference?

- Regulations are switching forms and manners. The difference lies on the regulation of data (actions, intentions, results ...). In the past, rulings assumed a simple ontology, where human knowledge could be treated as separated *knowledge about* human behavior (be understood as experience or as external behavior).
- Now, the structuring of data by means of metadata incardinate *action and knowledge* at the same time in a more complex dynamic flow in real time (action, knowledge, shared knowledge, meta-knowledge): i.e. it is endowed with an *intelligent flow*.

Drafting the rulers?



Quoted from: [GONORRÉIA](https://25.media.tumblr.com/tumblr_m3mrkmJhXQ1qzfebyo1_250.gif)
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SIMPLE SOCIETY

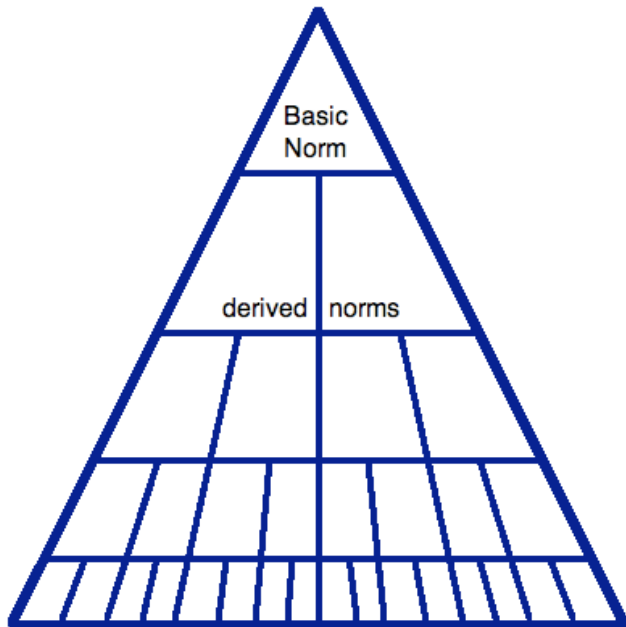
COMPLEX SOCIETY

Valid rule = Legal rule

SOCIAL RULES	PRIMARY RULES	SECONDARY RULES
(1) General (2) Permanent (stable) (3) Coactive	(1') Lack of certainty (2') Static quality (3') Spread social pressure PRE-LEGAL	(1'') Recognition (2'') Change (3'') Adjudication LEGAL
LAW'S MINIMUM CONTENT : "NATURAL NEEDS"	EXTERNAL POINT OF VIEW	INTERNAL POINT OF VIEW
(1) Vulnerability (Prohibition of violence)	EXTERNAL FACTUAL STATEMENT (Effectiveness of rules)	INTERNAL SENSE STATEMENT (Validity of rules)
(2) Approximate equality (Obligations and concessions' system)	DESCRIPTIVE USE OF LANGUAGE (Prediction, explanation)	OPERATIVE USE OF LANGUAGE (Understanding)
(3) Limited altruism (Obligations and concessions' system)		
(4) Limited resources (Property)	PRIMARY RULES' OBEDIENCE BY CITIZENS	EFFECTIVE ACCEPTATION BY THE CIVIL SERVANTS AS A GUIDELINE OR PUBLIC MODEL OF OFFICIAL CONDUCT
(5) Understanding and limiting power (Need of sanctions)		

SOCIAL
SYSTEMSOCIAL
SYSTEM
CONDITIONSLEGAL
SYSTEMLEGAL
SYSTEM
CONDITIONSInternational law =
Interstate lawNATION-STATE!
Vs. Global Law,
Global EthicsH.L.A.
Hart, *The
Concept
of Law*
(1961)

Hans Kelsen: *Reine Rechtslehre* (1911-1960)

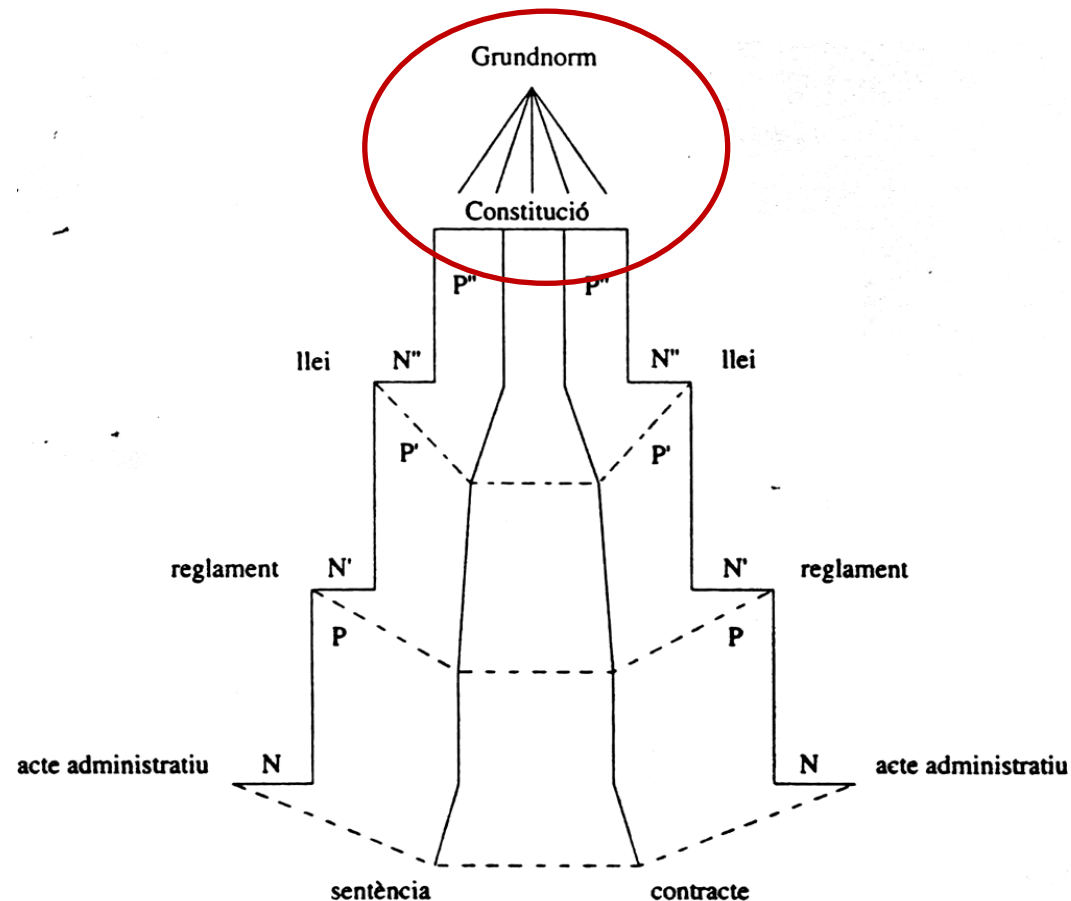


Legality, legitimacy= *Rechtsstaat*

Democracy: state form

Democratic behavior: citizen participation

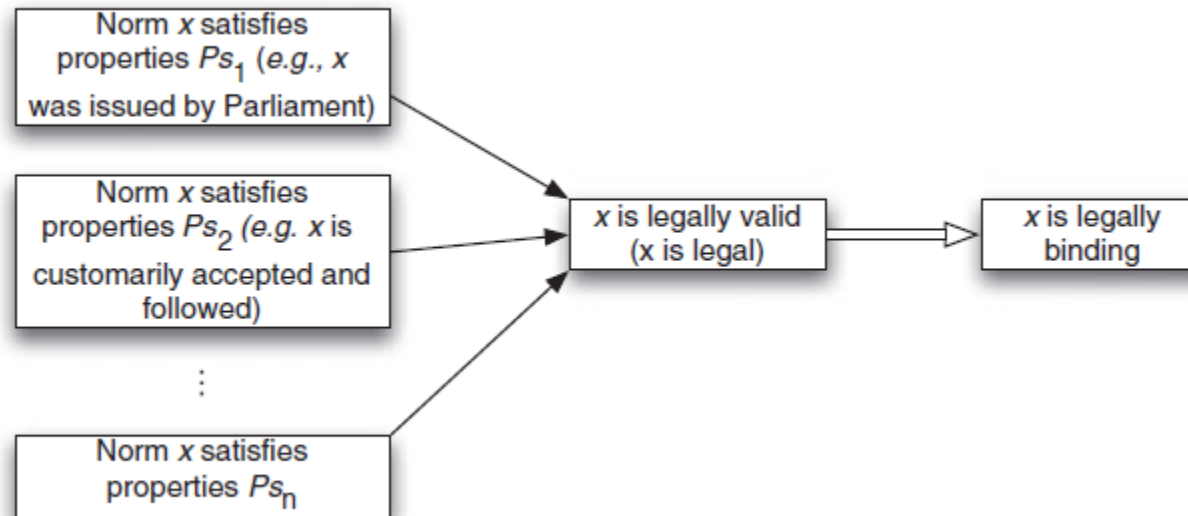
Law = Norms = Drafting,
enactment, interpretation,
implementation, enforcement



Taula 19. *Teoria gradual de l'Ordenament i NHF de Velsen.*

[Font: E. PATTARO, *Elementos para una teoría del derecho* (1985), p. 77]

Inferential representation of ‘legal validity’ (Sartor, 2008)

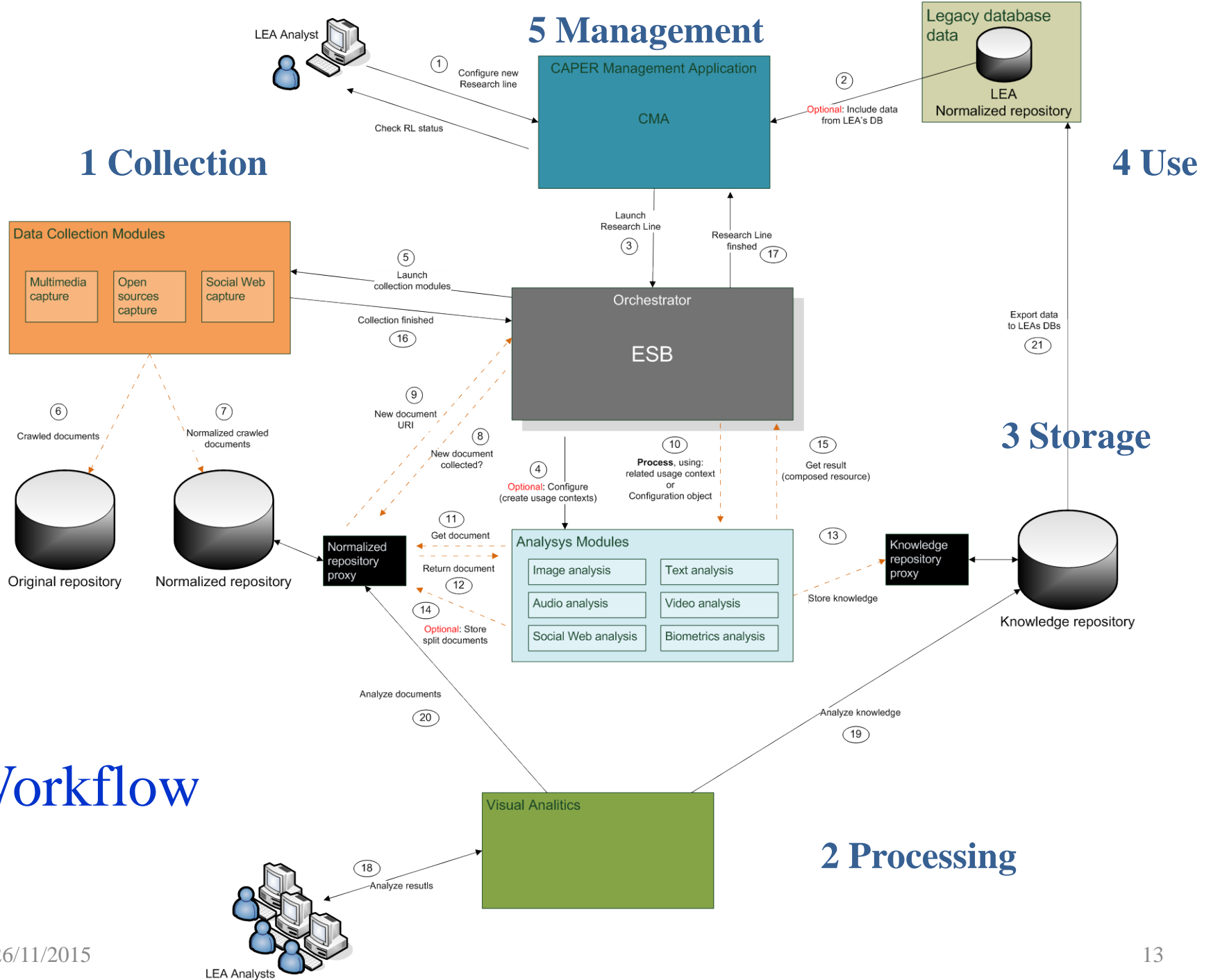


The concept of *legal validity* provides a sufficient condition for legal bindingness; *to say that a norm is legally valid strictly entails that it is legally binding* (a strict entailment, as opposed to a defeasible one, does not admit exceptions). This leads to the conceptual model of Figure, where the concept of legal validity provides a bridge connecting the fact of a norm having certain features and the conclusion that the norm is legally binding (the doublestroked arrow indicates strict entailment, while the single-stroked arrows indicates defeasible entailment)

CAPER objectives

- a) Implementing a framework to perform the task of **connecting multiple data sources** with multiple visualization techniques via a standardized data interface, including support for data-mining components.
- b) Enabling a quick and robust import of data types from disparate data sources in order to improve the ability of different LEAs to **work collaboratively**.
- c) Supporting pattern discovery, documentation and reuse, thus **increasing progressively detection capabilities**.
- d) Four major components: (i) Data harvesting (knowledge acquisition: data gathering), (ii) Analysis (content processing), (iii) Semantic Storage and Retrieval, and (iv) Advanced visualization and visual analytics of data

Workflow



CAPER Rules to regulate LEA's behaviour

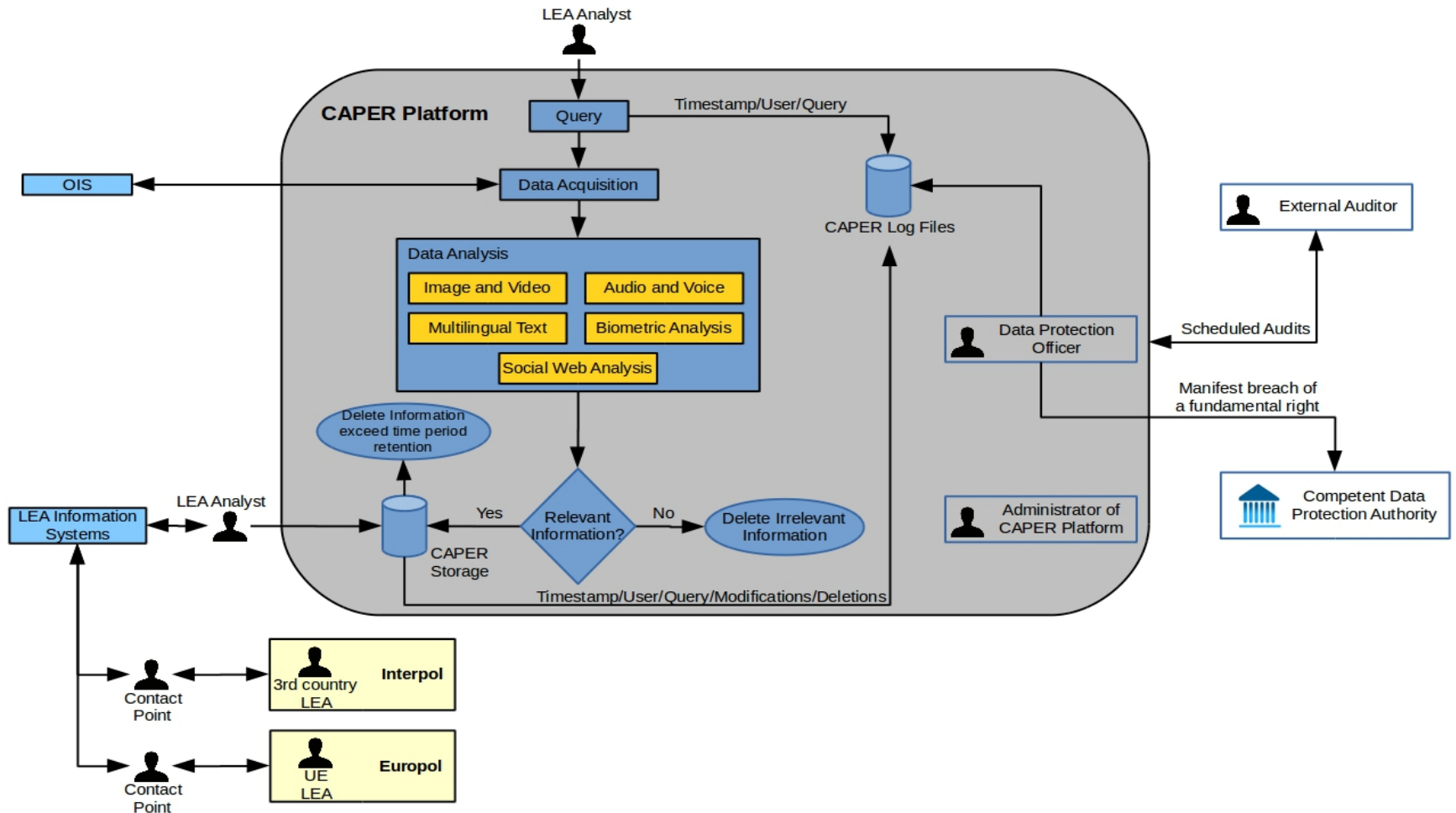
I Data Collection and Storage	R1.1 Every LEA should perform a specific Privacy Impact Assessment (PIA) according to the general framework offered by the CAPER Regulatory Model (CRM).
	R1.4 No automated classification of suspects, victims and witnesses can be inferred from CAPER results.
II Data Management	R.2.3 Access to CAPER database should be granted for the purpose of prevention, detection or investigation of organized crime.
	R.2.4 Any other request of access for other purposes should be rejected.
	R.2.5 Non-authorized LEA and intelligence services or administrative bodies of authorized LEA should not have access to CAPER data.
	R.2.6 The use of system integrity tools should enable detection and reporting of changes applied on servers. In case of such an event the system should be able to notify specific users such as the creator of the query which results have been modified.
	R.2.7 Regular audits of the CAPER system should be performed by the external supervisor. The competent authority should be informed of the results, if necessary, according to national legislation, including the plans for enforcing recommendations.
III. Data Reuse and Transfer	R3.2 No automated classification of suspects, victims and witnesses can be inferred from CAPER results.
IV Right of Data Access	R.4.2 The reasons to deny access should be clear and defined. Access can be denied when the access may jeopardise the fulfilment of the LEA tasks, or the rights and freedoms of third parties.
	R.4.2 The alleged reasons to deny access should be open to external supervision. The external supervisory authority should have free access to documents justifying the refusal. A short time-span of three months to give an answer to a previous request of access should be implemented.

PRINCIPLES OF FAIR INFORMATION PRACTICES (FIPs)

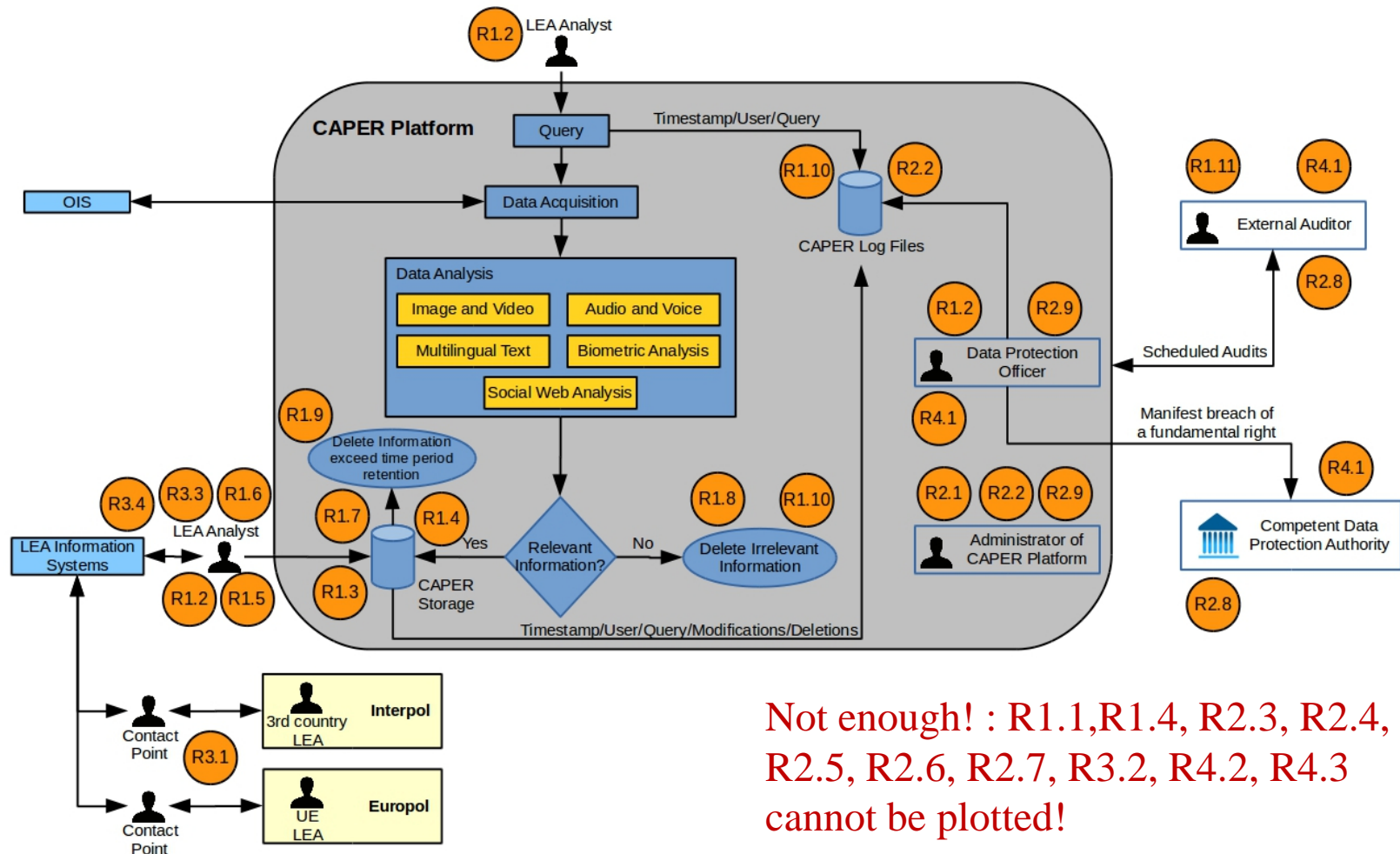
<i>1. Openness and transparency</i>	There should be no secret record keeping. This includes both the publication of the existence of such collections, as well as their contents.
<i>2. Individual participation</i>	The subject of a record should be able to see and correct the record.
<i>3. Collection limitation</i>	Data collection should be proportional and not excessive compared to the purpose of the collection.
<i>4. Data quality</i>	Data should be relevant to the purposes for which they are collected and should be kept up to date.
<i>5. Use limitation</i>	Data should only be used for their specific purpose by authorized personnel.
<i>6. Reasonable security</i>	Adequate security safeguards should be put in place, according to the sensitivity of the data collected.
<i>7. Accountability</i>	Record keepers must be accountable for compliance with the other principles.

FIPs. Source: Langheinrich (2001), Alan Westin (1967)

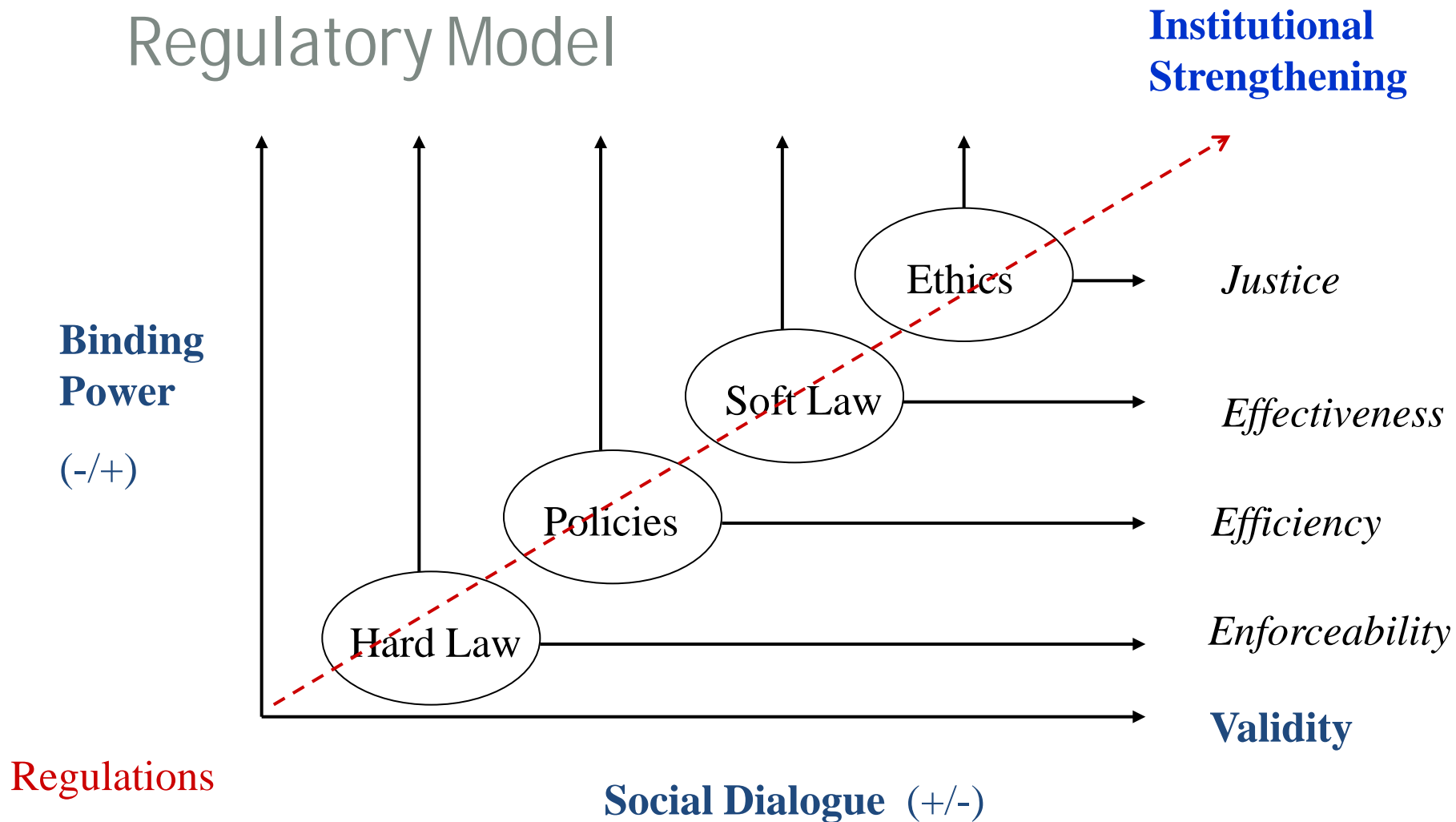
CAPER Architecture flow



CAPER Architecture Flow and Rules

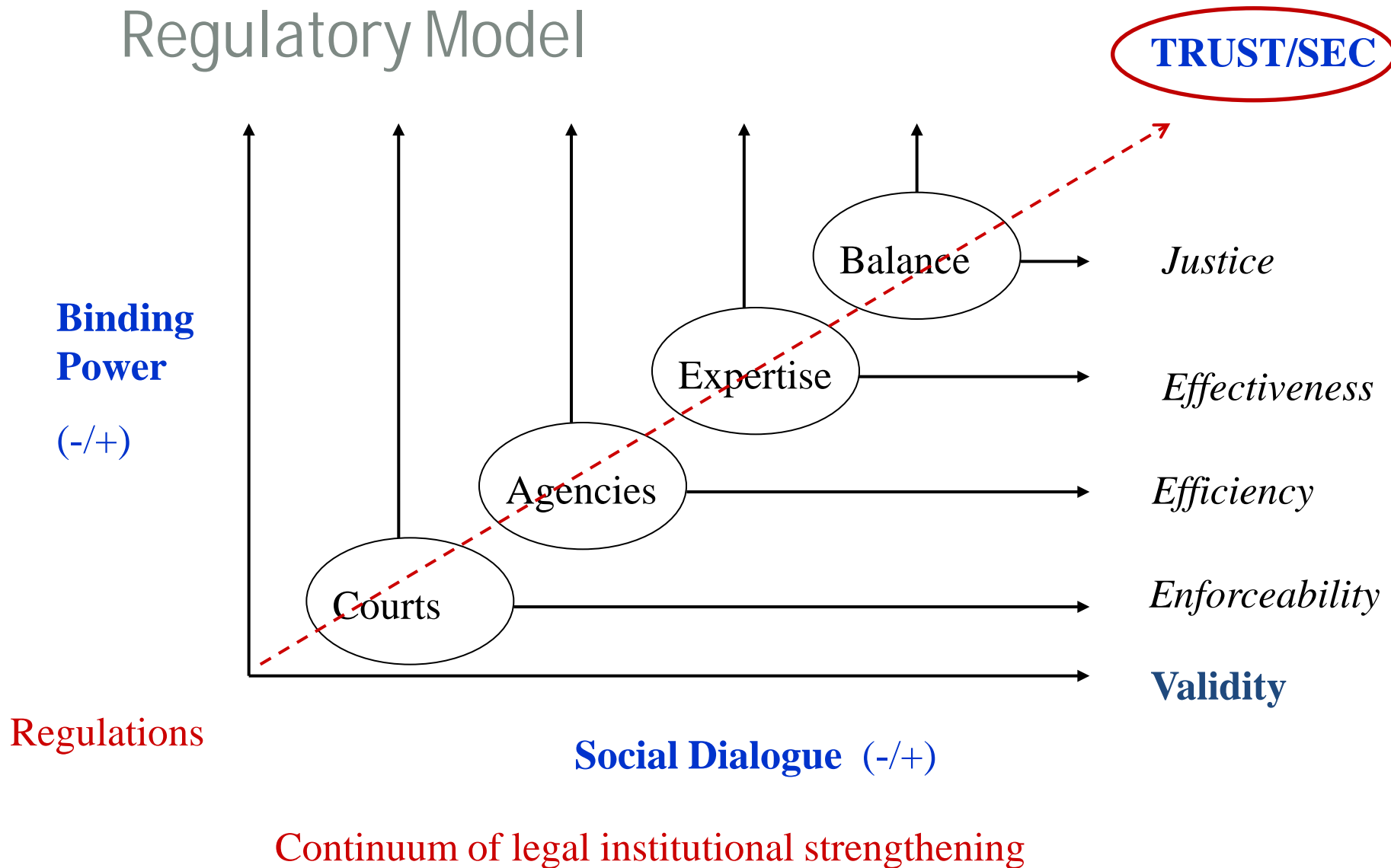


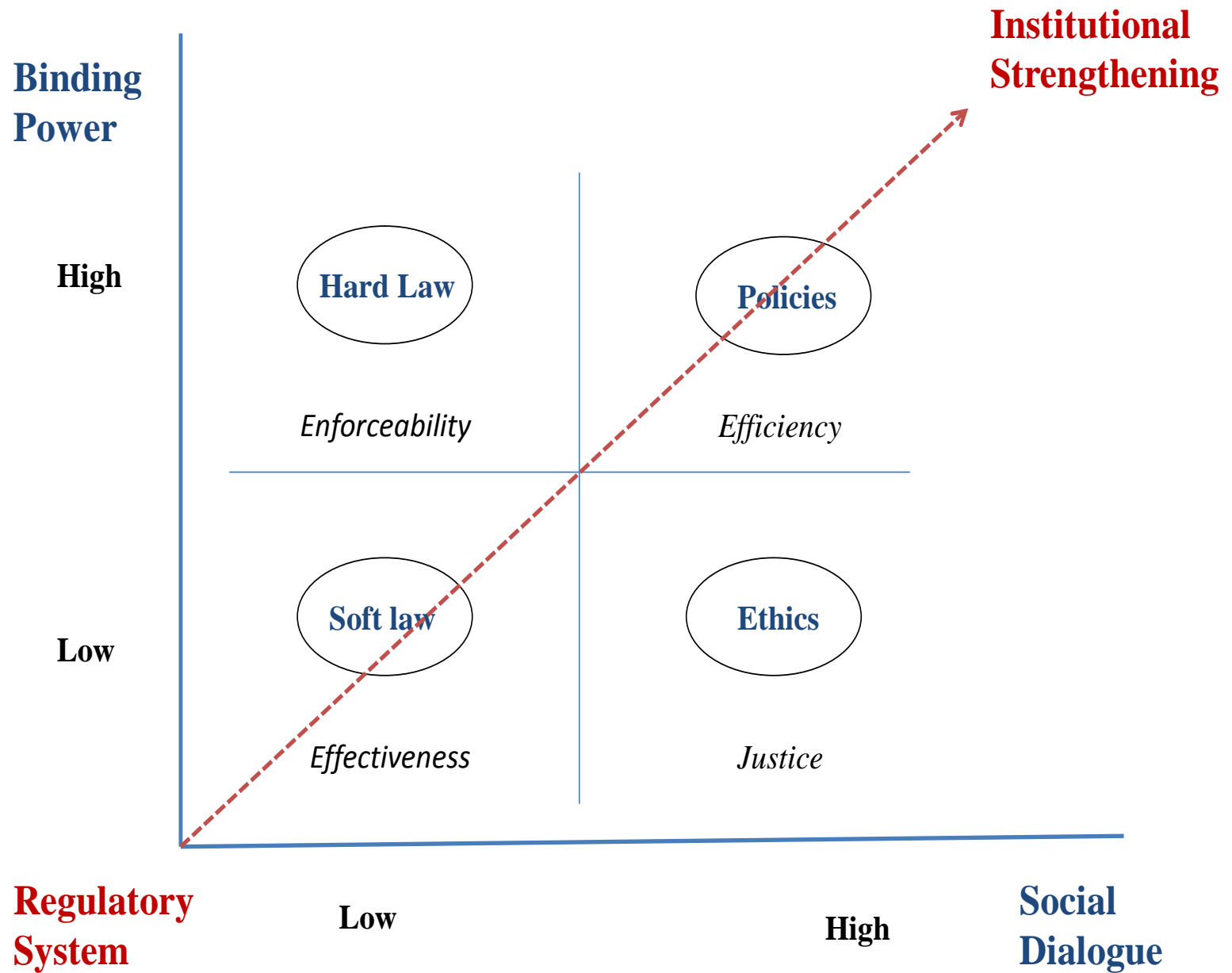
Regulatory Model

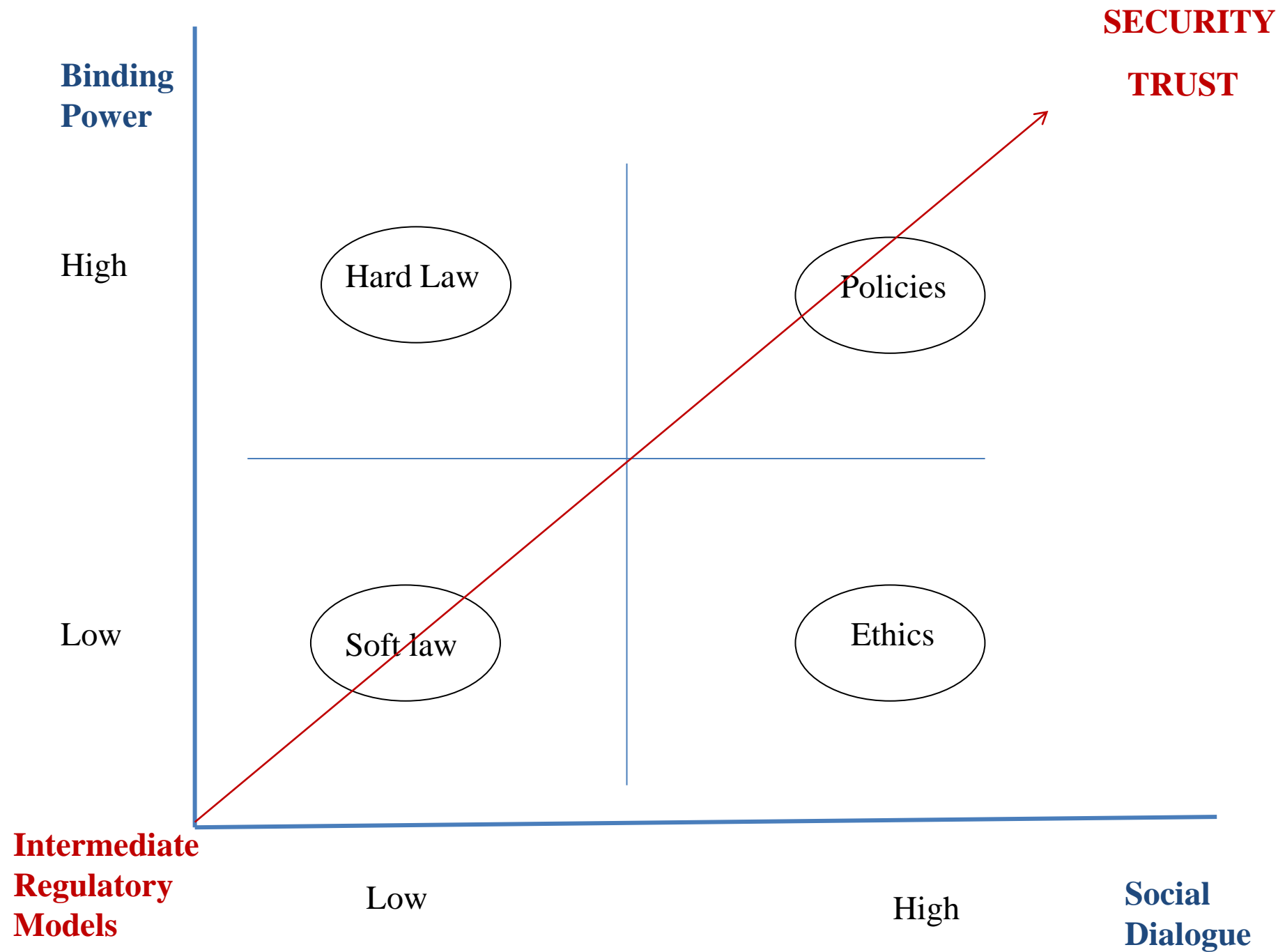


Continuum of legal institutional strengthening

Regulatory Model







Domains of research	Scientific areas involved
1. Basic empirical research on mind, language, empathy and emotions	1. Social Neuroscience 2. Cognitive Science 3. Primatology 4. Basic Social Psychology Research
2. Evaluation and applied social psychology research on empathy, forgiveness, and apologies	5. Social Psychology, Therapy and Counseling 6. Social Psychology and Narrative Analysis 7. Social Psychology and Criminology
3. Applied linguistics research on culture, politeness, apologies and excuses	8. Frame Semantics and Cognitive Linguistics 9. Cross-cultural Pragmatics and Linguistics 10. Linguistics and Functional Pragmatics 11. Socio-linguistics, Discourse Analysis and Corpus-based Linguistics
4. Sociological research on micro-situations, cognition, emotions and discourse	12. Interactional or Micro-sociology 13. Ethnomethodology 14. Discourse and Conversational Analysis 15. Cognitive Sociology
5. Research on social and political violence, conflict resolution and reconciliation processes	16. Political Anthropology and Conflict Resolution Studies 17. Communication and Intercultural Conflict Studies 18. Political Science 19. Conflict Resolution and International Relations Studies
6. Empirical and theoretical research on dialogue, argumentation, negotiation and mediation	20. Argumentation and Dialogue 21. Negotiation Studies 22. Management and Organization Studies 23. Applied Artificial Intelligence and On-line Dispute Resolution
7. Criminological and judicial research	24. Criminology 25. Social Work and Professional Mediators' Studies 26. Comparative Restorative Justice and Judicial Studies
8. Legal, social, political and philosophical foundations	27. Socio-legal studies 28. Legal Theory, Rights and Jurisprudence 29. Philosophy and Ethics

Micro-foundations of Relational Justice

Behavioral research on mind, language, forgiveness, empathy and emotions

Social research on culture, language, apologies and micro-situations

Social, political, philosophical, and legal research on conflict resolution, dialogue and reconciliation

Social, political, philosophical, legal research on RJ and human rights and criminal and legal systems

(1)

Social Neuroscience, Cognitive Science, Primatology, Basic Social Psychology

(2)

Soc. Psy. Therapy and Counseling, Soc. Psy and Narrative, Soc. Psy and Criminology

(3)

Frame Semantics, Cross-cultural and functional Pragmatics, Sociolinguistics Discourse Analysis

(4)

Micro-sociology, Ethnomethodology and Conversational Analysis, Cognitive Sociology

(5)

Pol. Anthropology, Intercultural Studies, Political Science and International Relations

(6)

Argumentation Negotiation Management Applied AI

(7)

Criminology, Mediation, Judicial and Comparative Studies

(8)

Socio-legal Studies; Theory of Law, Rights and Jurisprudence; Ethics and Philosophy

General research framework for micro-foundations of Relational Justice. Casanovas and Poblet (2007, 2008), “Concepts and Fields of Relational Justice”, P.Casanovas et al. *Computational models of law*, LNAI 4884, Springer, 2008

Fields	Authors	Focus	Object	Methodology
Social Neuroscience	Farrow, Clark Lawrence Singer, Saxe Damasio LeDoux , Harris, Iacoboni, Preston	Brain and neural functioning	Empathy and emotions (forgiveness) in brain areas. Somatic markers hypothesis (SMH).	Controlled lab experiments, Functional MRI (fMulti Image Ressonance)
Cognitive Science	Gardner Minsky Rumelhart McClelland Hollan, Hutchins, Thagard	Intelligence and social behavior	ToM (Theory of Mind). Scripts and cognitive patterns in social cognition	Neural networks, scripts, cognitive modeling
Primatology	De Waal, Aureli Flack, Cords Schaffner	Aggression and conciliatory behavior	Empathy and cooperative interaction patterns in monkeys, apes and humans. Relational model of aggression.	Behavioral observation, social networks, distance analysis, kinship, social niches reconstruction
Basic Social Psychology Research	Ekman, Rolls Lazarus Bandura , Ortony, Gallup	Categorization, basic emotions and communicative behavior	Conceptual representation, empathy and universal (basic) emotions in human expression (bodily and linguistic)	Neural networks, controlled lab experiments, genetics, regression analysis, prototype and semantic analysis

Table 1. Basic empirical research on mind, language, empathy and emotions.

Empathy
Cognition
Emotion
Aggression
Forgiveness
Guilt
Remorse
Shame

Apologies
Excuses
Frames
Scripts
Schemes
Prototypes
Discourse
Speech

MIND

LANGUAGE

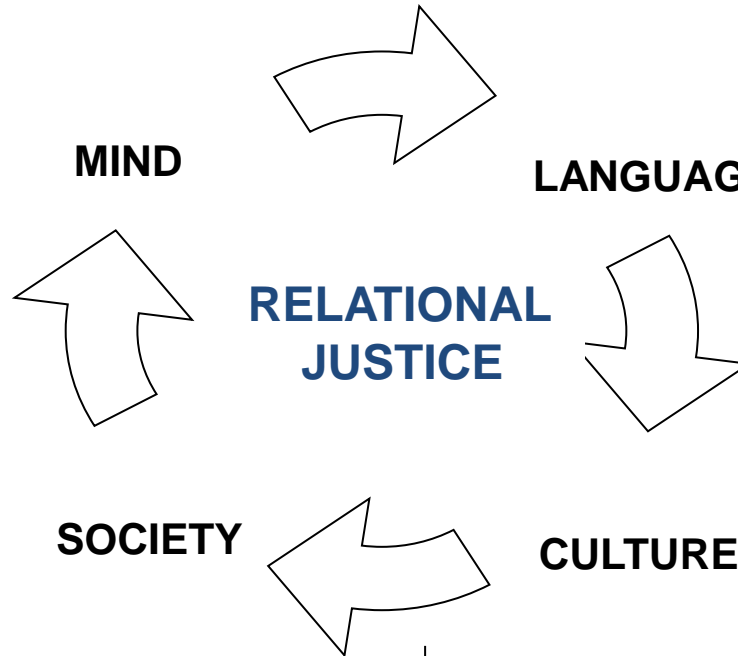
**RELATIONAL
JUSTICE**

SOCIETY

CULTURE

Regulation
Norms
Institutions
Mediation
Adjudication
Offender
Victim
Rights

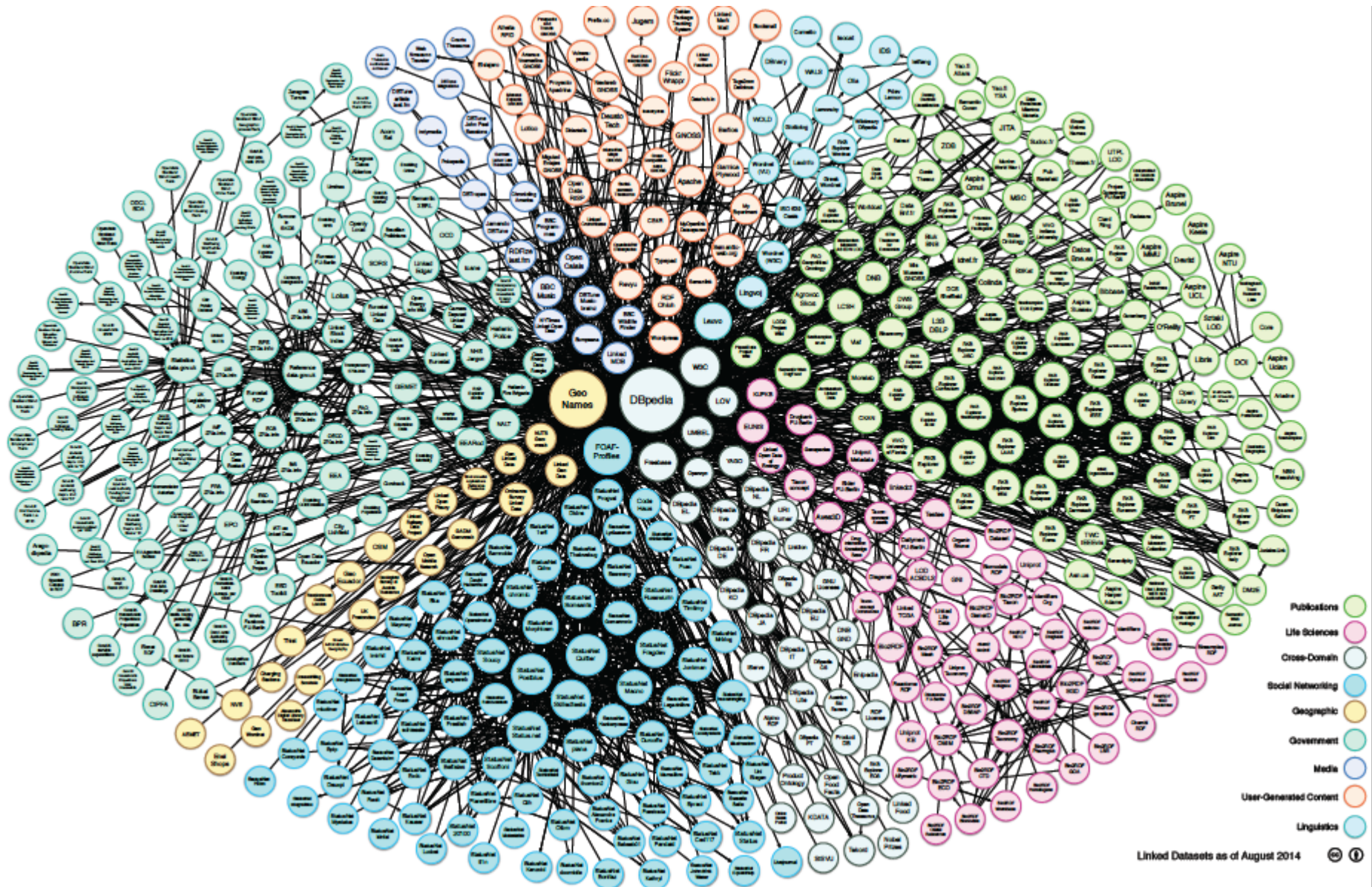
FTAs
Politeness
Ethnicity
Violence
Conflicts
Dialogue
Argumentation
Conciliation



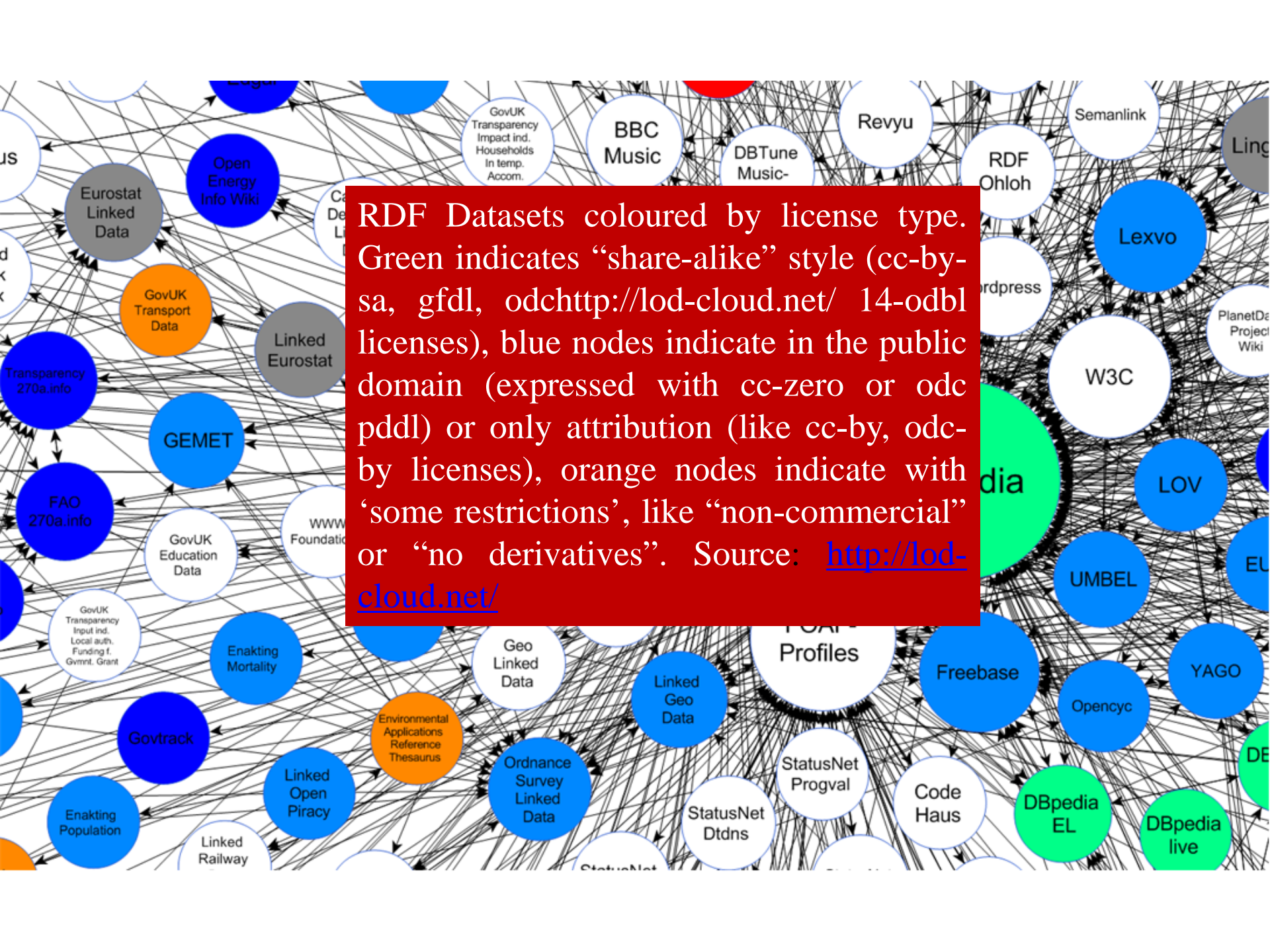
T3. Kinesis [Islamic justice] (1993)

- 330- (inaudible) yo soy un currante, trabajaba obra, tengo testigos
- 331- empresa (inaudible) estaba trabajando en otra empresa en Vic
- 332- (inaudible) *no soy*
- 333- *un traficante, ni trafico ni nada (inaudible).*
- 334- JUEZ: m- bueno... ¡visto para sentencia!

Open Source Intelligence LODC-DBpedia)



Linking Open Data cloud diagram 2014, by Max Schmachtenberg, Christian Bizer, Anja Jentzsch and Richard Cyganiak. <http://lod-cloud.net/>



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The Licenses

Attribution

Attribution ShareAlike

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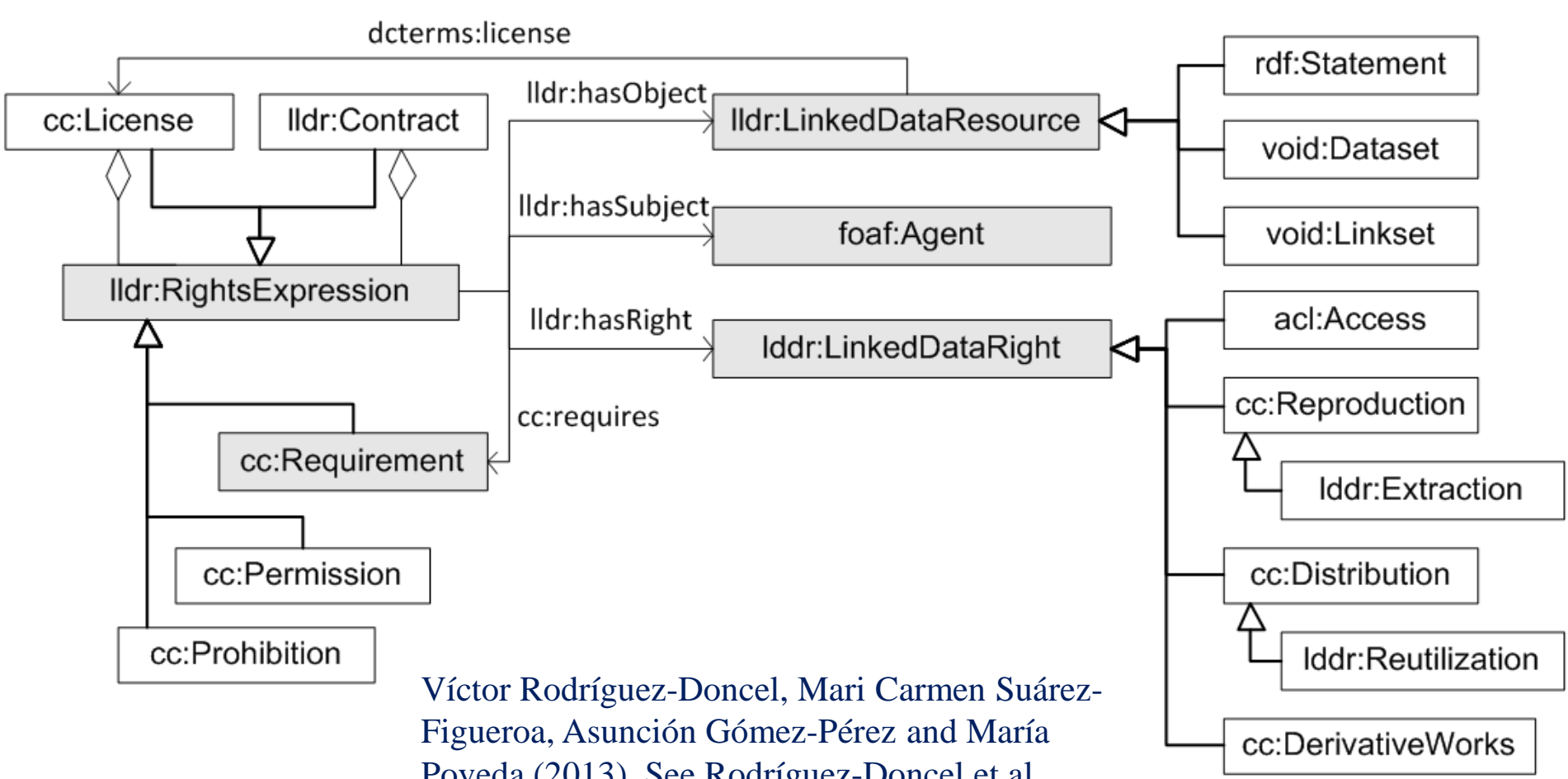
Rights Expression Languages (REL)

[Renato Iannella]

Rights entity captures offers/agreements between parties and the content. REL model:

- **Permissions** (usages allowed over the content: play, print, sell...)
- **Constraints** (limits to permissions e.g. time-based restrictions...)
- **Requirements** (obligations needed to exercise the permissions, e.g. the need to have a valid credicard during the term of agreement)

Regulation: ontology design pattern e.g. *LicenseLinkedDataResources*



Víctor Rodríguez-Doncel, Mari Carmen Suárez-Figueroa, Asunción Gómez-Pérez and María Poveda (2013). See Rodríguez-Doncel et al. (2013).

Some concepts

- Identity meta-layer system// Meta-rule of Law// Global Ethics
- Rights Expression Languages
- Relational Justice
- Semantic Web Regulatory Models
- Intermediate Institutions

Some publications I

- Pompeu Casanovas, “Conceptualisation of Rights and Meta-rule of Law for the Web of Data”, *Democracia Digital e Governo Eletrônico (Santa Caterina, Brasil)* vol. 1 n. 12 (2015): 18-41.
<http://buscalegis.ufsc.br/revistas/index.php/observatoriodoegov/article/view/34399>
republ. at *Journal of Governance and Regulation / Volume 4, Issue 4, 2015, p. 118-129.*
- Casanovas, Pompeu, Juan Arraiza, Felipe Melero, Jorge González-Conejero, Gila Molcho, and Montse Cuadros. "Fighting Organized Crime Through Open Source Intelligence: Regulatory Strategies of the CAPER Project." In *Legal Knowledge and Information Systems: JURIX 2014: The Twenty-Seventh Annual Conference*, vol. 271, p. 189-198. IOS Press, 2014.
- Casanovas, Pompeu, and John Zeleznikow. "Online dispute resolution and models of relational law and justice: A table of ethical principles." P. Casanovas et al. In *AI Approaches to the Complexity of Legal Systems*, LNCS 8929 pp. 54-68. Springer Berlin Heidelberg, 2014.

Some publications II

- Casanovas, Pompeu. "Semantic Web Regulatory Models: Why Ethics Matter." *Philosophy & Technology* 28, no. 1 (2015): 33-55.
- Casanovas, P., & Poblet, M. (2008). "Concepts and fields of relational justice" (pp. 323-339). Sartor, G, et al. *Computable Models of the Law, LNAI 4884*, Springer Berlin Heidelberg.
- Casanovas, P.; Poblet, M. "Micro-foundations of Restorative Justice". In: *Images of Restorative Justice Theory*, R. Mackay, Ch. Pelikan, J. Deklerck, B. v.Stokkom (Ed.), Ed. Polizei und Wissenschaft. Frankfurt, pp. 235-256.
- Casanovas, Pompeu. "Agreement and relational justice: A perspective from philosophy and sociology of law." S. Ossowski (ed.) *Agreement technologies*. Springer Netherlands, 2013. 17-41.

Thank you!